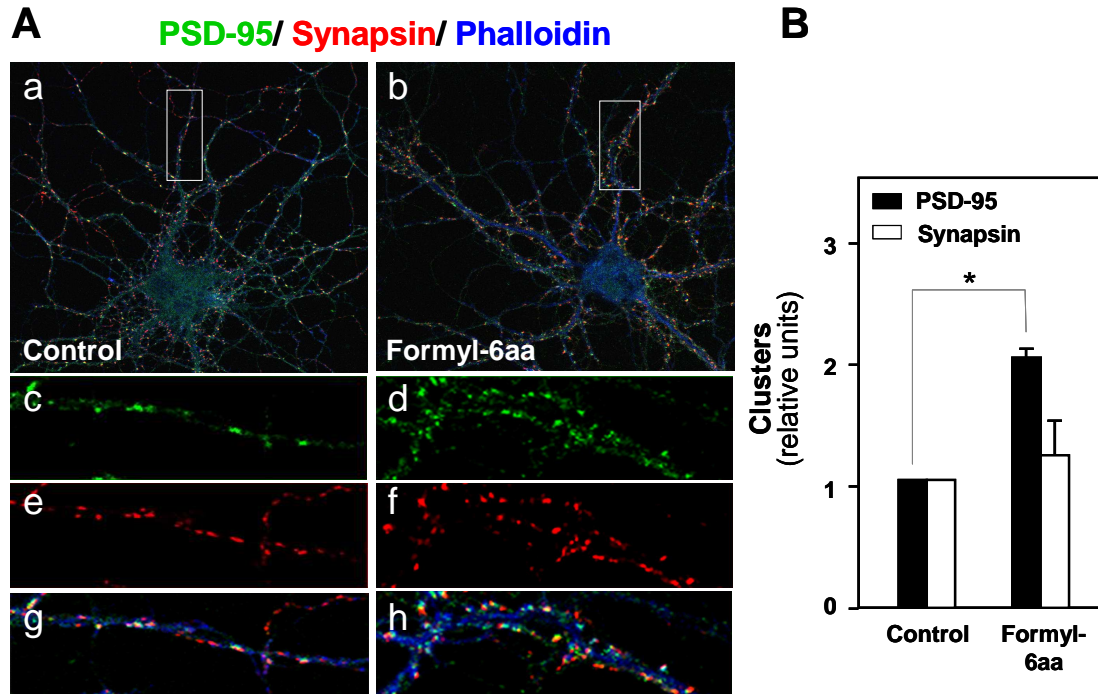
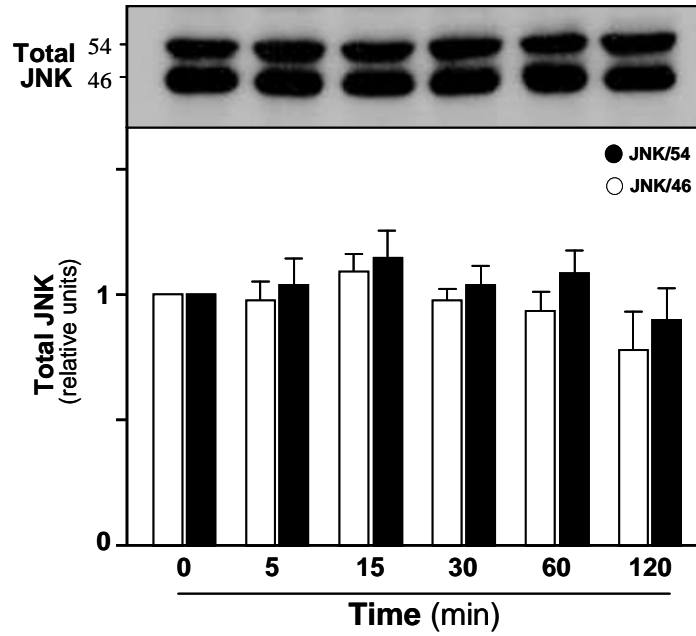


Supplemental Fig. S1.



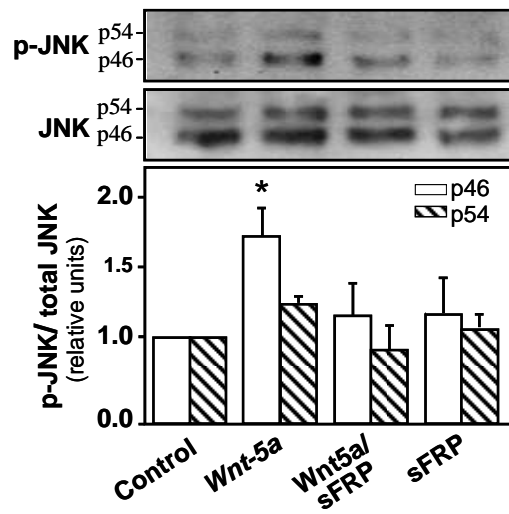
Supplemental Fig. S1. **A formylated hexapeptide derived from the *Wnt-5a* ligand induces the clustering of PSD-95 in mature hippocampal neurons.** (A) Representative images of double immunofluorescence of Synapsin-1 (red), PSD-95 (green) and fluorescence by phalloidin (blue). a, c, e, g) Control. b, d, f, h) Formylated hexapeptide. c, e, g) and d, f, h) Magnified views of the framed regions in a) and b). (B) Indicates the quantification of the number of PSD-95 and synapsin clusters after the treatment with or without the formylated hexapeptide (n=3). *P<0.05.

Supplemental Fig. S2.



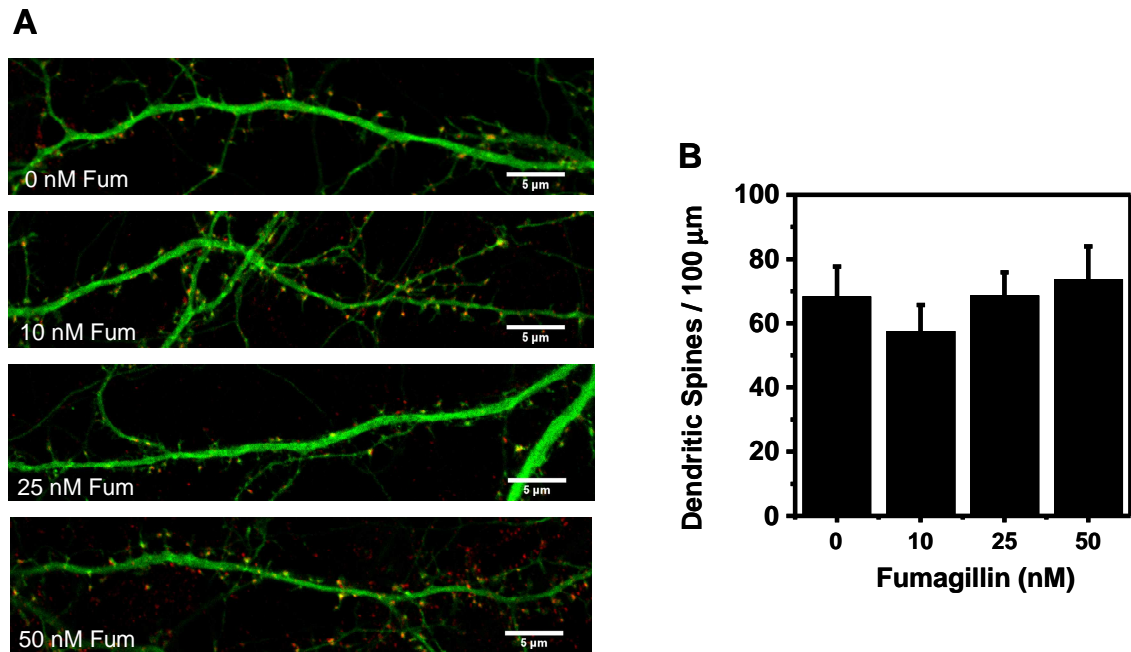
Supplemental Figure S2. ***Wnt-5a* does not affect the total levels of JNK on 14-DIV hippocampal neuron cultures.** Representative western blot of total JNK in neurons treated with *Wnt-5a* in a temporal course. (n=3). *P<0.05

Supplemental Fig. S3.



Supplemental Figure S3. ***Wnt-5a* activates non-canonical *Wnt*/JNK pathways on 14-DIV hippocampal neuron cultures.** Representative western blot of total and phosphorylated JNK in neurons stimulated with *Wnt-5a* in the presence or absence of sFRP for 1 h. In the graphs, JNK2/3= 55 kDa and JNK1= 46 kDa. (n=5). *P<0.05

Supplemental Fig. S4.



Supplemental Figure S4. **Fumagillin does not affect the formation of dendritic spines and the number of neurites on 14-DIV hippocampal neuron cultures.** (A) Representative images of dendritic spines of EGFP expressing neurons stained with PSD-95 of hippocampal neurons exposed to fumagillin for 2 h at different concentrations, (B) indicates the quantification of dendritic spines/100 μ m (n=3).